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54 Display element of transparent plastic with fluorescent colorant.

57 This invention provides an element for displaying one or more portions of characters or shapes, wherein the display element comprises partially transparent plastic in which fluorescent colorant is incorporated. Preferably the inside of one head end is provided with a profiled form.

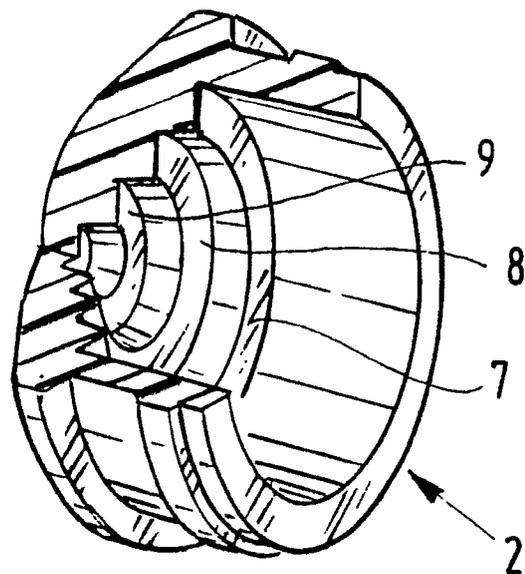


FIG.3

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## DISPLAY ELEMENT OF TRANSPARENT PLASTIC WITH FLUORESCENT COLORANT

The present invention provides a display element according to claim 1.

Such a display element shows for instance text in very clear manner if a number of these display elements are arranged in a background, for example a metal grid provided with holes, and if light or (partially) invisible radiation such as so-called "black light" falls onto such a pattern of display elements.

In preference the inside of the head end of a display element takes a profiled form so that a rear side of the display element results that is provided with facets, whereby the front view of the display element exhibits a highlighting illumination.

A most preferred embodiment of such a display element is provided with concentric rings at the head end of the inside thereof; when radiated such a display element is the most clearly noticeable relative to a plurality of different display elements which were injection moulded by way of experiment with differing profiling on the inside of the head end.

Further advantages, features and details will be elucidated in the following description of preferred embodiments of the present invention with reference to a drawing, wherein:

fig. 1 shows a perspective view of a background provided with a first embodiment of the present invention;

fig. 2 is an oblique front view of a display element of fig. 1;

fig. 3 is a partly broken away, oblique rear view of the display element of fig. 2;

fig. 4 shows a partly broken away, oblique rear view of a second embodiment of the present invention; and

fig. 5 is a perspective, oblique front view of the embodiment of fig. 4.

If in a background 1 (fig. 1), for instance a metal grid, display elements 2 are arranged in a particular pattern, texts or shapes can be shown as desired herewith in the grid 1. The display elements 2 are manufactured from transparent plastic with fluorescent colorants such as for instance those made commercially available by the Bayer company under the name Lisa. A particular illuminating effect results when such display elements 2 are radiated with light (sunlight (also diffuse), artificial light) or ultraviolet radiation such as "black light". The colorants relate preferably but not exclusively to fashion colours such as turquoise, violet and the like. The radiation generated in the display element by fluorescence will exit substantially via the convex head end.

A display element according to the present

invention also displays a conspicuous appearance if radiated from the jacket end 1 from behind the grid, for instance by means of a black light.

A display element 2 preferably has roughly the form of an internally hollow toadstool provided with an approximately rounded conical or convex head end that projects over a hollow cylindrical end 4 so that the head end 3 has a large target surface for the radiation. The radiation enters via the head end into the interior of the transparent display element.

The cylindrical jacket 4 is preferably provided with a snap-in edge 6 for snapping-in that jacket end into the grid 1. The display element 2 (fig. 3) is in preference provided on the inside of the head end 3 with concentric, annular edges 7, 8 and 9 which are staggered respectively in lengthwise direction of the display element 2 and which form facets for reflection of the radiation entering the head end which, as with a diamond, cause a shining/sparkling, with the result that the display element is very highly visible.

Another embodiment 12 of the display element according to the present invention (fig. 4, 5) is provided with a convex head end 13 and a plurality of comparatively small facets 14 which are arranged in an inner wall 16 which runs parallel to the head end surface 13.

The embodiment shown can be manufactured in elegant manner in large quantities with a device for injection moulding of plastic.

### Claims

1. Element for displaying one or more portions of characters or shapes, wherein the display element comprises partially transparent plastic in which fluorescent colorant is incorporated.

2. Display element as claimed in claim 1, having a cylindrical end for insertion into an opening of a background.

3. Display element as claimed in claim 2, provided with means for snapping the display element fixedly into the opening of the background.

4. Display element as claimed in claim 1, 2 or 3, provided with an approximately convex head end having a diameter greater than the outer diameter of the cylindrical outer end.

5. Display element as claimed in any of the claims 1-4, provided with a head end of which the inner wall facing toward the cylindrical end takes a profiled form.

6. Display element as claimed in claim 5, wherein the inside of the head end is provided with concentric, annular edges or reflection surfaces

located at mutual intervals in lengthwise direction of the display element.

7. Display element as claimed in any of the foregoing claims that is manufactured according to an injection moulding technique.

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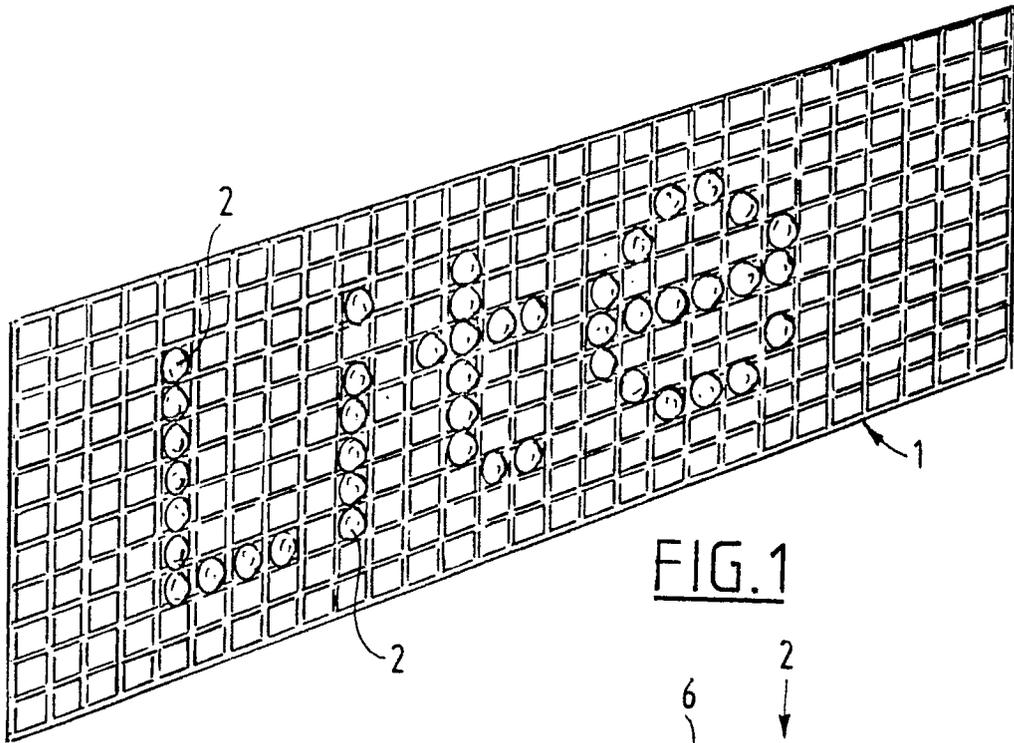


FIG. 1

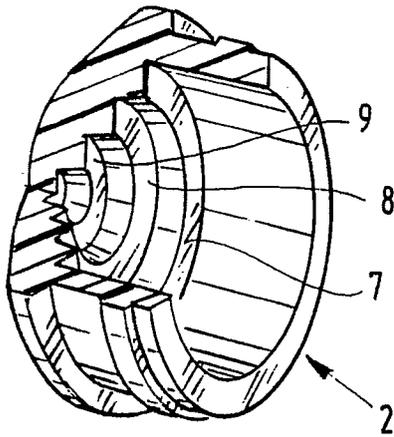


FIG. 3

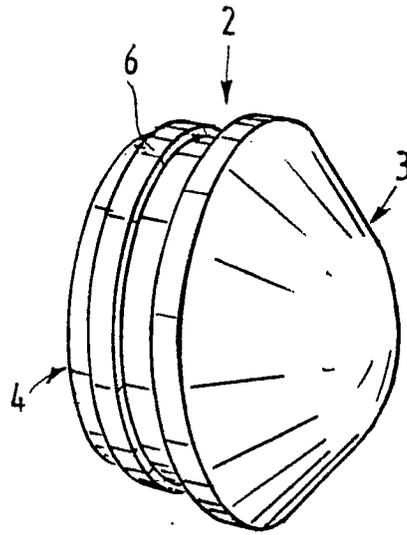


FIG. 2

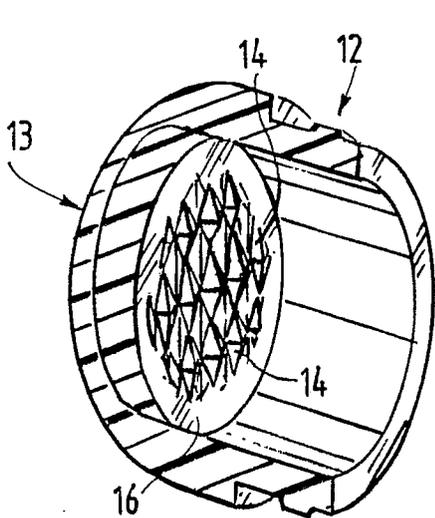


FIG. 4

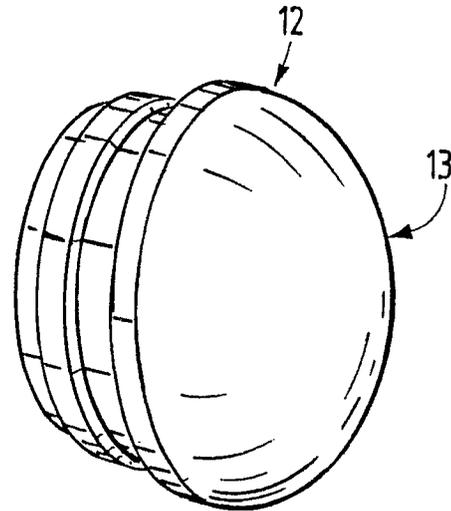


FIG. 5



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X	FR-A-1 128 737 (M.C. DI SPIRITO) * Abstract; page 1, right-hand column, paragraphs 1-3; figures 1,2 *	1,2,4	G 09 F 13/20 G 09 F 7/06
Y	---	7	
X	DE-U-8 708 573 (MÖNCK KUNSTSTOFFTECHNIK GmbH) * Claims 1,2,16-19; page 5, last paragraph - page 6, last paragraph; page 10, last paragraph - page 11, last paragraph; figures 1,3 *	1,2	
Y	DE-C- 892 547 (M. SCHMIDT) * Claim *	7	
A	US-A-2 168 223 (L.L. LAUVE) * Claim 1; page 1, right-hand column, lines 12-45; figures 1-4 *	1-5	
A	US-A-2 269 325 (T. VEITCH) * Claims 1-3; page 1, line 41 - page 2, line 17; figures 1-6 *	5,6	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			G 09 F
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 30-07-1990	Examiner FRANSEN L.J.L.
<b>CATEGORY OF CITED DOCUMENTS</b> X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document	

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